

Date: Tuesday, 2/26/2008 8:00:57 AM  
 User: Kim Johnston

## Process Sheet

311 2/23 212 2/24/03

14

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : LONG STEP ASSEMBLY HIGH SKID RH  
 Job Number : 37617  
 Estimate Number : 10274  
 P.O. Number :  
 This Issue : 2/26/2008 S.O. No. :  
 Prsht Rev. : NC Part Number : D3505913 311  
 First Issue : 1/1 Type : LARGE FAB ASSY Drawing Number : D3272 REV B  
 Previous Run : 36831 Drawing Revision : B  
 Material :  
 Due Date : 3/31/2008 Qty: 10 Um: Each  
 Written By :  
 Checked & Approved By :  
 Comment : Est Rev: A 04.03.22 New issue KJ/RF  
 Est Rev: B 07-06-09 Added D3572-1 JLM

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



2002/24 (40)



Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-311 CHG004 002 per ECW1164 4

2.0 D32721 STEP



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

STEP

BATCH: B 37779

PL 08.03.27

10

3.0 D30671 End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D3067-1 End Plate B35804

PL 08.03.27

10

4.0 D32191 Support



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D3219-1 Support B36861

PL 08.03.27

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 2/26/2008 8:00:57 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID RH

Job Number: 37617

Part Number: D350591312

Exo/04/08

Job Number:



Seq. #: Machine Or Operation: Description:

5.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Pho →

Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod M106834

M106762

3-Grind End Plate flush

PK 08:03:27 10  
PK 08:03:27 10  
SAP 08/04/08 10

6.0 QC9 VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PD 03-04-09 10

7.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 08/04/09 4104H

8.0 HAND FINISHING1 HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

FL 08/04/10 10

9.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

C 08/04/10 4104H

10.0 D3065041 Step Leg Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3065-041

Step Leg Assy

B35623 (A)

B35624 (A)

SAP 08/04/11

11.0 D30661 Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 20.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D3066-1

Spacer

B36410

SAP 08/04/11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D350-591-311 PAR #: N/A Fault Category: 700/100 - Large NCR: (Yes) No DQA: D Date: 08/04/09  
 QA: N/C Closed: D Date: 08/04/09

NCR: 37617		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/04/09	#5	All ten (10) steps were welded wrong. were supposed to be right But were made in to lefts	08/04/09	Change all paper work to -311. Discard incorrect labels	08.4.09	08/04/09	08/04/09	08/04/09
		QC welder has no many step / Buggles on the work and can't keep track.	08/04/09	In form / Retain welder not to mix up w/los	08.04.09	08/04/09	08/04/09	08/04/09

NOTE: Date & initial all entries

Date: Tuesday, 2/26/2008 8:00:57 AM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID RH

Job Number: 37617

Part Number: D3505913

Job Number:



Seq. #: Machine Or Operation: Description:

12.0 MS20600AD4W4 Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total: 160.0000 Each(s)

Pick:

Qty Part Number Description Batch

16 MS20600AD4W4 Rivet M107063

SAD 08/04/11

13.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Assemble Leg Assembly as per Dwg D3272.

SAD 08/04/11

(10)

14.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SAD 08/04/11 (10) LH

15.0 D30671 End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D3067-1 End Plate B37571

SAD 08.04.13 10

16.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding

2-Inspect for foreign object as per QSI 024

3-Weld Aft End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod M106834

4-Grind End Plate flush

5-Install last rivet.

SAD 08/04/15 (10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Date: Tuesday, 2/26/2008 8:00:57 AM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID RH

Job Number: 37617

Part Number: D350591312

Job Number:



Seq. #:

Machine Or Operation:

Description :

17.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PD 08-04-15

(10)

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 08/04/17 (+10 LH)

19.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch up Alodine

9/3

08-04-21

VIA LK

20.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M 107550

M-1/BK

08-04-23

(10)

21.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3272 and QSI 005 4.4

M 107385

M-1

08/04/24

(10) LH

22.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: Inspect Powder Coat and Wing Walk

5 08/04/24 (+10 LH)

23.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

24.0

D22303

Mounting Lug



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 D2230-3 Mounting Lug

37746

AS 08/04/24

(10)

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**NOTE:** Date & initial all entries



Date: Tuesday, 2/26/2008 8:00:57 AM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID RH

Job Number: 37617

Part Number: D350591342

Job Number:



Seq. #:

Machine Or Operation:

Description :

25.0

D2618

Bushing



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2618

Bushing

35028

AS 08/04/21 (X10)

26.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total : 6.0000 f(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2856-400-720 Abrasion Strip

32161

AS 08/04/21 (X10)

27.0

D32351

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D3235-1

Mounting Lug

33249

AS 08/04/21 (X10)

28.0

D3278041

Support Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D3278-041

Support Assembly

37780

AS 08/04/21 (X10)

29.0

AN335A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN3-35A

Bolt

3M160993

AS 08/04/21 (X10)

30.0

AN413A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 AN4-13A

Bolt

M107321

AS 08/04/18 (X10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Date: Tuesday, 2/26/2008 8:00:57 AM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID-RH

Job Number: 37617

Part Number: D350591342

Job Number:



Seq. #:

Machine Or Operation:

Description :

31.0

AN536A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN5-36A

Bolt

M107013

AS 08/04/18 (X10)

32.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10

Washer

M107534 x33

M 67715 x7

AS 08/04/18 (X10)

33.0

AN960JD416

Washer



Comment: Qty.: 16.0000 Each(s)/Unit Total : 160.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

16 AN960JD416

Washer

M107321

AS 08/04/18 (X10)

34.0

AN960JD516

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD516

Washer

M107008

AS 08/04/18 (X10)

35.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L3

Nut (or -3)

M106883

AS 08/04/18 (X10)

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 2/26/2008 8:00:57 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID RH <sup>CH</sup>

Job Number: 37617

Part Number: D35059131230 <sup>S 08/04/18</sup>

Job Number:



Seq. #:

Machine Or Operation:

Description :

36.0

MS21042L4

Nut



Comment: Qty.: 8.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 MS21042L4

Nut (or -4)

M106825

AS 08/04/18 x10

37.0

MS21042L5

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L5

Nut (or -5)

M106785

AS 08/04/18 (X)

38.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

S 08/04/24 (16 LK)

39.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-312

Location:

8/4/24

(10X)

SP

40.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/04/28 (X)

Job Completion



376  
(X)

FX DSI9410-011 B 38473

20A1164 L

AS 08/04/18 (X)

MF 08-04-25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**DART**

DESIGN <i>QP</i>	DRAWN BY <i>B</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>H</i>	DRAWING NO. D3272	REV. B SHEET 1 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE NTS
A	04.03.01	NEW ISSUE	
B	07.05.18	D3272-1 WAS D2622-120	

**RELEASED**07.06.04 *ff*

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3272-041	STEP ASSEMBLY, HIGH LONG (LH)
	X	D3272-042	STEP ASSEMBLY, HIGH LONG (RH)
1	1	D3065-041	LEG ASSEMBLY
2	2	D3066-1	SPACER
2	2	D3067-1	END PLATE
2	2	D3219-1	SUPPORT
1	1	D3272-1	STEP
16	16	MS20600AD4W4	RIVET

**GENERAL NOTES:**

- 1) D3272-041 SHOWN. FOR D3272-042, INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1  
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX.

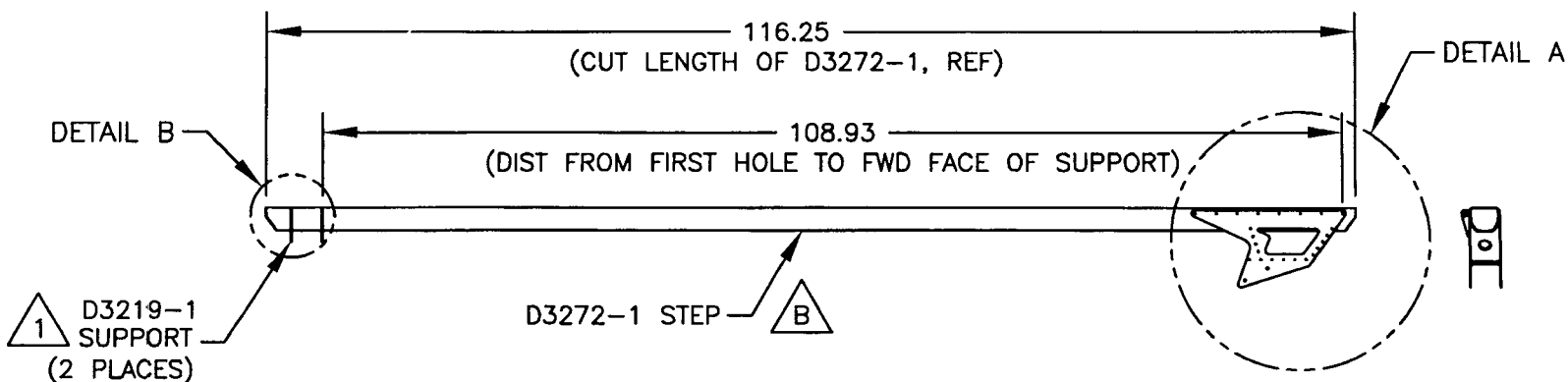
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WITHOUT NOTICE  
WORK ORDER  
NO. *37617*

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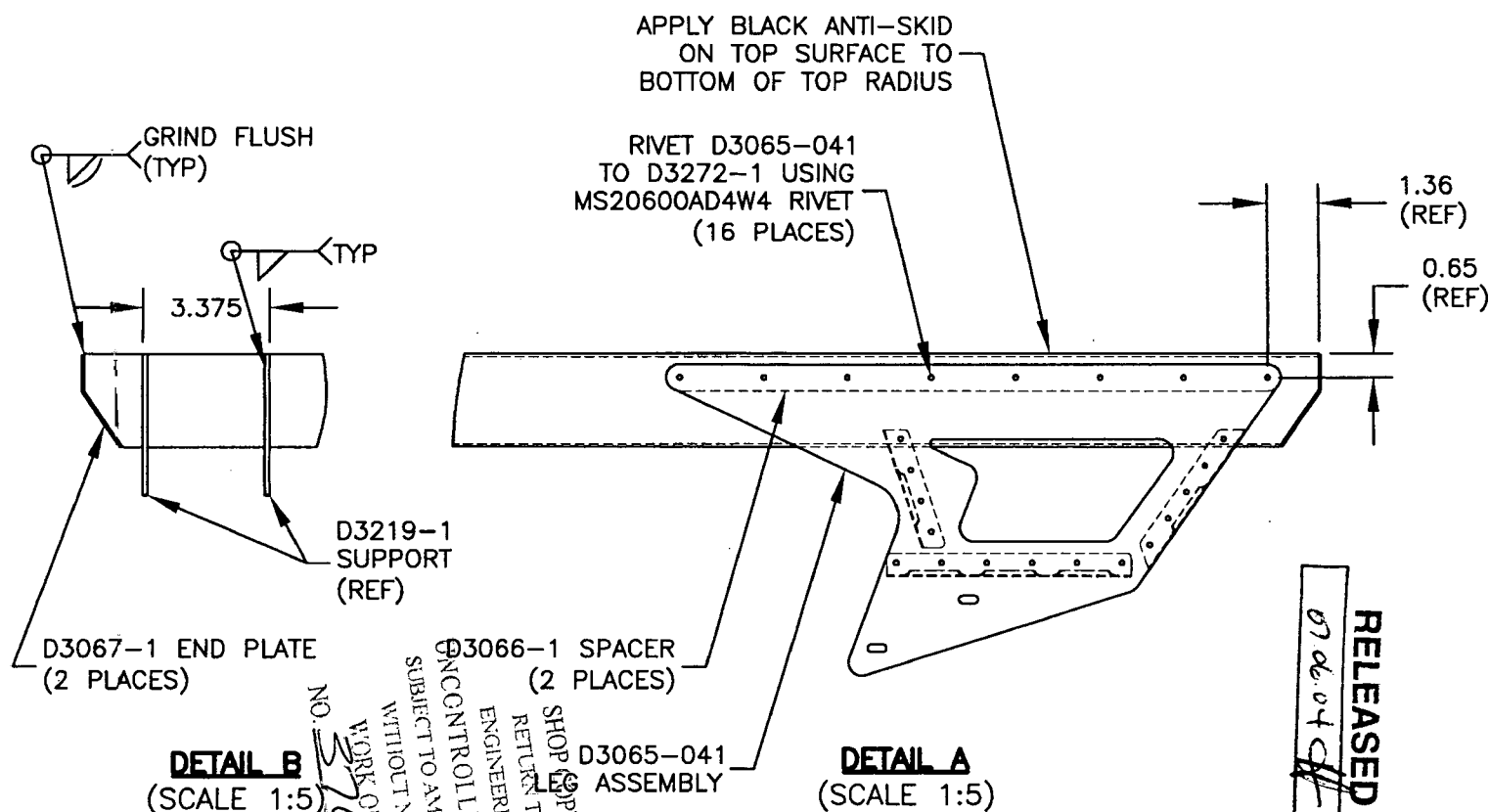
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**DART**

DESIGN	90	DRAWN BY	90	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. B
CHECKED	CE	APPROVED	CE	DRAWING NO. D3272	SHEET 2 OF 3
DATE	07.05.18	TITLE	STEP ASSEMBLY, HI LONG	SCALE	1:20



**D3272-041 STEP ASSEMBLY (LH. SHOWN)**  
D3272-042 STEP ASSEMBLY (RH, OPPOSITE)



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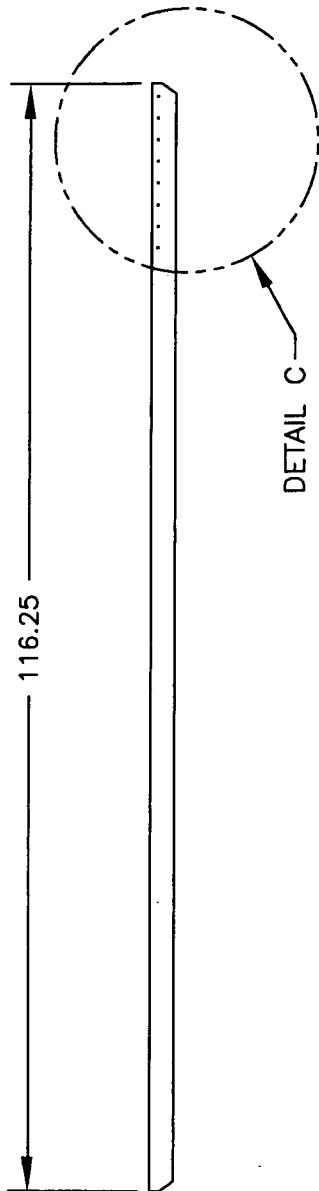




DESIGN <i>GP</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3272	REV. B SHEET 3 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE 1:20

RELEASED

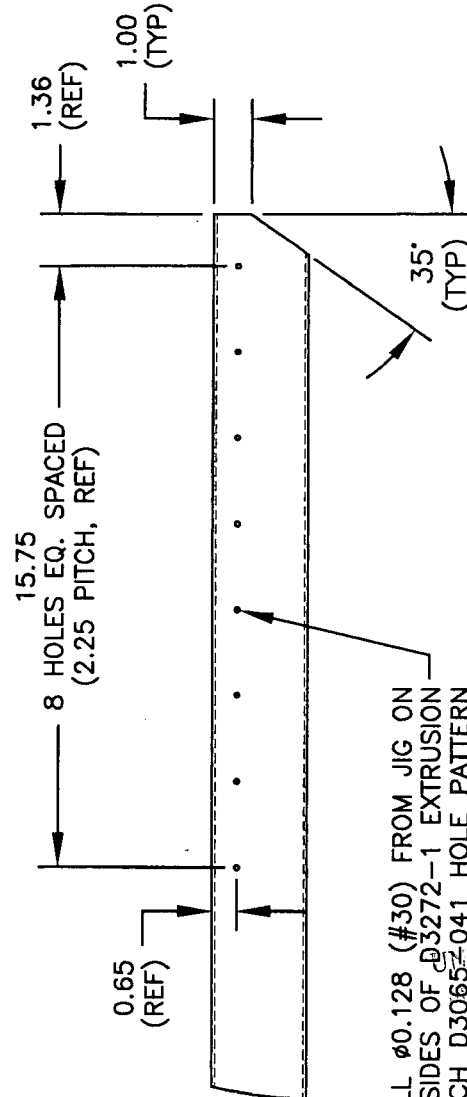
07.06.04 *[Signature]*



DETAIL C

**B D3272-1 STEP**

(MAKE FROM D2622-120 STEP EXTRUSION)



**DETAIL C**  
(SCALE 1:5)

DRILL  $\phi 0.128$  (#30) FROM JIG ON  
BOTH SIDES OF D3272-1 EXTRUSION  
TO MATCH D3065-041 HOLE PATTERN

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